

CLAIMS

1. A method of treating an alkali metal carboxylate salt brine contaminated with chloride ion, comprising admixing such contaminated brine with a solution of a silver salt, especially silver nitrate, causing silver chloride to be formed in a reaction mixture and separating the silver chloride from the residual brine.
2. A method according to claim 1, wherein the brine comprises cesium or cesium and potassium as the alkali metal(s) and formate, acetate or other species as the salt anion.
3. A method according to claim 1 or claim 2, comprising the use of a silver nitrate solution containing at least 800g/l AgNO_3 .
4. A method according to claim 1,2 or 3, wherein by-product alkali metal nitrate is removed after cooling the reaction mixture, preferably to about 0°C .
5. A method according to any one of the preceding claims, carried out such that the residual brine has a specific gravity of not less than 1.6.
6. A method according to any one of the preceding claims, wherein silver nitrate used in a quantity of from 95 to 112% of stoichiometric.
7. A method of use of an alkali metal carboxylate salt brine, comprising the recovery of used or concentrated brine contaminated with chloride ion, treating the recovered brine with a solution of a silver salt, especially silver nitrate, causing silver chloride to be formed, separating the silver chloride from the brine, and re-using the brine.